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Training Support Package

STUDENT HANDOUT

6495-4

Physical Fitness Training — Total Fitness

Adopted for use by the Army Aviation Center, Fort Rucker, Alabama on 1 April 1983

D 101.47/4:

STUDENT HANDOUT

AND

VUGRAPHS

READEX FICHE best copy available

YOU ONLY LIVE ONCE,

BUT IF YOU LIVE RIGHT,

ONCE IS ENOUGH.

OF THE VALUES WE SOLDIERS ADHERE TO, THAT OF PERSONAL RESPONSIBILITY DEMANDS WE DEVELOP AND MAINTAIN HABITS AND LIFESTYLES FOR OURSELVES AND OUR SOLDIERS WHICH ARE SUITED TO MEETING RIGORS OR OUR PROFESSION. PROPER EXERCISE AND DIET VERY DIRECTLY AFFECT OUR PROFESSIONAL COMPETENCE.

NOT ONLY MUST WE BE SMART ENOUGH TO DO THE RIGHT THING IN BATTLE, WE MUST HAVE THE PHYSICAL STRENGTH, STAMINA, AND EMOTIONAL STABILITY TO CARRY THROUGH WITH OUR INTENT. WE CAN ACHIEVE AN EDGE IN COMBAT BY MINIMIZING THE EFFECTS OF STRESS AND FEAR ON OUR PHYSICAL AND MENTAL POWERS. THIS REQUIRES SYSTEMATIC, REASONED APPROACHES TO MAINTAINING PHYSICAL FITNESS.

E. C. MEYER
GENERAL, UNITED STATES ARMY
CHIEF OF STAFF

OBJECTIVES

- ASSOCIATE TOTAL FITNESS CONCEPTS WITH YOUR PERSONAL LIFESTYLE BEHAVIOR.
- DEFINE THE MAJOR COMPONENTS OF TOTAL FITNESS AS BIOLOGICAL, ENVIRONMENTAL AND MENTAL.
- ASSESS YOUR PERSONAL AND ENVIRONMENTAL LEVELS OF SPECIFIC TOTAL FITNESS LIFESTYLE BEHAVIORS.
- RECALL THE RATIONALE FOR TOTAL FITNESS AS A SELF-DEVELOPMENT AND RISK REDUCTION PROCESS.
- DISCRIMINATE THE BASIC PRINCIPLES OF EXERCISE, DIET, NUTRITION, WEIGHT CONTROL, SUBSTANCE ABUSE CONTROL AND STRESS MANAGEMENT AS TOTAL FITNESS BEHAVIORS.
- BECOME AWARE OF THE EXISTING PROGRAMS IN THE MILITARY COMMUNITY TO IMPROVE TOTAL FITNESS.

MAJOR QUESTIONS

- WHAT IS TOTAL FITNESS?
- WHY IS IT IMPORTANT?
- HOW DO WE AFFECT TOTAL FITNESS BY OUR LIFESTYLES?

HEALTH CONTINUUM

(-) (+)

ILLNESS — HEALTH — TOTAL FITNESS

INDICATORS OF TOTAL FITNESS

BIOLOGICAL

1. EXERCISE
2. NUTRITION
3. HEIGHT/WEIGHT
4. DRUG USE
5. ALCOHOL USE
6. SMOKING
7. MEDICAL
8. DENTAL
9. PERSONAL HYGIENE
10. REST/SLEEP
11. HEREDITY

ENVIRONMENTAL

A. PHYSICAL
   1. ACCIDENTS
   2. MOTOR VEHICLES
   3. SAFETY

B. SOCIAL
   1. EDUCATION
   2. MARRIAGE
   3. PEERS
   4. CUSTOMS/TRADITION
   5. CULTURE
   6. WORK
   7. SOCIOECONOMIC LEVEL

C. ECOLOGICAL
   1. CLIMATE
   2. TEMPERATURE
   3. PRODUCTION
   4. ENERGY CONSERVATION

INDICATORS OF TOTAL FITNESS

MENTAL

1. STRESS
2. PERSONALITY
3. EMOTION
4. COGNITION
5. ETHICS/MORALITY
6. TEMPERMENT
7. VALUES/BELIEFS
8. SELF-ACTUALIZATION

RATIONALE FOR TOTAL FITNESS

- PHYSICAL AND MENTAL READINESS FOR COMBAT
- MAINTENANCE OF GOOD HEALTH AND APPEARANCE
- INJURY PREVENTION
- DISEASE RISK REDUCTION
- FATIGUE TOLERANCE
- MORALE
- SELF-CONFIDENCE
- SURVIVABILITY

PRINCIPLES OF THE THEME OF TOTAL FITNESS

- YOU ARE IN CHARGE OF YOUR OWN LIFE
- YOU ARE DIFFERENT FROM EVERYBODY ELSE
- YOU NEED A SENSE OF PURPOSE
- YOU ARE MOTIVATED BY A DESIRE FOR HAPPINESS
- YOU ARE OK AND ON YOUR WAY TO BEING BETTER

MAJOR CAUSES OF DEATH

MALE	FEMALE
1. MYOCARDIAL INFARCTION	1. BREAST CANCER
2. LUNG CANCER	2. MYOCARDIAL INFARCTION
3. AUTO ACCIDENTS	3. CEREBROVASCULAR ACCIDENT
4. LIVER DISEASE	4. AUTO ACCIDENTS
5. CEREBROVASCULAR ACCIDENT	5. LIVER DISEASE

CORONARY RISK FACTORS

- FAMILY HISTORY
- MALE SEX
- ADVANCING AGE
- HYPERTENSION
- DIABETES
- HYPERLIPIDEMIA
- ABNORMAL EKG
- SMOKING
- TYPE A PERSONALITY

KEY HEALTH HABITS

- REGULAR EXERCISE
- NO SMOKING
- SLEEP, 7-8 HOURS REGULARLY
- MAINTENANCE OF NORMAL WEIGHT
- EATING BREAKFAST REGULARLY
- NO OR MODERATE DRINKING
- NO BETWEEN MEAL SNACKING
- DAILY MAINTENANCE OF ORAL HYGIENE

TOTAL FITNESS COMPONENTS

- NUTRITION AND WEIGHT CONTROL
- STRESS MANAGEMENT
- SMOKING CESSATION
- SUBSTANCE ABUSE CONTROL
- EXERCISE AND FITNESS

NUTRIENTS AND THEIR SOURCES

- PROTEIN - MEAT, POULTRY, FISH, EGGS, MILK, SOYBEAN
- CARBOHYDRATES -
  - SIMPLE - REFINED AND NATURAL SUGAR, HONEY, CANE, BEET
  - COMPLEX (STARCHES) - BREADS, POTATOES, BEANS, PEAS
  - CELLULOSE (FIBERS) - FRUITS, WHOLE GRAIN, VEGETABLES
- FATS - DAIRY PRODUCTS, COOKING OIL, NUTS
- VITAMINS -
  - WATER SOLUBLE - C1, B1, B6, B12
  - FAT SOLUBLE - A, D, E, K

    FISH, GREEN VEGETABLES, MILK
- MINERALS - SODIUM, IRON, CALCIUM, MAGNESIUM, OTHERS
- WATER - NO CALORIES

CALORIES

3,500 CALORIES = 1 POUND OF STORED BODY FAT
SUBSTRACT CALORIES TO LOSE WEIGHT
OR ADD CALORIES TO GAIN WEIGHT

METHODS OF CALORIE CONTROL

- BURN UP CALORIES THROUGH REGULAR BODY PROCESSES
- BURN UP CALORIES THROUGH EXERCISE PROGRAM
- REDUCE THE NUMBER OF CALORIES CONSUMED
- COMBINATIONS OF THE ABOVE

CALORIE REQUIREMENTS FOR VARIOUS AGES AND ACTIVITY GROUPS

GROUP	CALORIE REQUIREMENTS
INFANT	1,000 CAL/DAY
TEENAGER (MALE)	3,000 CAL/DAY
TEENAGER (FEMALE)	2,400 CAL/DAY (20% LESS)
SEDENTARY MALE (YOUNG ADULT)	2,500 CAL/DAY
SEDENTARY FEMALE (YOUNG ADULT)	2,000 CAL/DAY
COLLEGE FOOTBALL PLAYER	4,000-5,000 CAL/DAY

MAJOR BENEFITS OF DIET CONTROL

- WEIGHT CONTROL - NUMBER OF CALORIES ARE LOWERED OR RAISED
- LIPID CONTROL - REDUCTION OF ANIMAL FATS IS LINKED TO LOWER LEVELS OF CHOLESTEROL
- BLOOD PRESSURE - SODIUM (SALT) REDUCTION MAY LOWER INCIDENCE OF HYPERTENSION
- DISEASE PREVENTION - CANCER, DIABETES MELLITUS

IMPROVING NUTRITIONAL HABITS

- EAT A VARIETY OF FOODS
- MAINTAIN AN IDEAL WEIGHT
- AVOID TOO MUCH FAT, SATURATED FAT AND CHOLESTEROL
- EAT FOODS WITH ADEQUTE AMOUNTS OF STARCH AND FIBER
- AVOID TOO MUCH SUGAR
- AVOID TOO MUCH SODIUM AND SALT
- IF YOU DRINK ALCOHOL, DRINK IN MODERATION

PHYSICAL SYMPTOMS OF STRESS

- BLOOD PRESSURE INCREASE
- HYPERTENSION
- MIGRAINE AND MUSCLE TENSION HEADACHES
- SLEEP DISORDERS
- MUSCLE TENSION

STRESS STRATEGIES

- PROPER NUTRITION
- EXERCISE
- RELAXATION
- SET REALISTIC GOALS
- MAKE HOME AND WORK ENVIRONMENT PLEASANT
- AVOID TAKING WORK HOME
- DO NOT MAKE TOO MANY LIFE CHANGES AT ONCE
- IF STRESSED, TALK TO A FRIEND
- IF PHYSICAL SYMPTOMS FROM STRESS PERSIST, SEE A PHYSICIAN
- AVOID NOISE

WARNING: THE SURGEON GENERAL

HAS DETERMINED THAT CIGARETTE

SMOKING IS DANGEROUS TO YOUR HEALTH

IMPLICATIONS OF SMOKING

FINANCIAL CONSIDERATIONS

- ACTUAL EXPENSE OF PURCHASING TOBACCO PRODUCTS (MONEY COULD USUALLY BE USED IN OTHER WAYS)
- HEALTHCARE COSTS DUE TO SMOKING RELATED PROBLEMS
- LOSS OF PRODUCTIVE TIME DUE TO SMOKING RELATED PROBLEMS
- LOSS OF PERSONAL PROPERTY AND LIFE DUE TO SMOKING RELATED FIRES AND OTHER ACCIDENTS

IMPLICATIONS OF SMOKING

NON-WELLNESS CONSIDERATIONS

- RESPIRATORY CONDITIONS

  LUNG CANCER
  CHRONIC BRONCHITIS
  EMPHYSEMA

- CARDIOVASCULAR CONDITIONS

  HEART ATTACK
  ATHEROSCLEROSIS
  ANGINA PECTORIS
  HIGH BLOOD PRESSURE

- INCREASED BURDEN ON HEART DUE TO EXCESSIVE STIMULATION

REASONS FOR CONTINUATION OF SMOKING HABIT

- ABSENCE OF INCREASED ENERGY OR STIMULATION
- THE SATISFACTION OF HANDLING OR MANIPULATING THINGS
- THE ACCENTUATION OF PLEASURE AND RELAXATION
- THE REDUCTION OF NEGATIVE FEELINGS
- PSYCHOLOGICAL DEPENDENCE
- PHYSICAL ADDITION TO NICOTINE
- HABIT

THE SMOKING CULTURE

THINK ABOUT YOUR OWN WORK AND RECREATIONAL SETTINGS. WHICH OF THE FOLLOWING BEST REFLECT THE ATTITUDES OF YOUR ASSOCIATES?

_____ FOR ASHTRAYS TO ALWAYS BE AVAILABLE IN HOMES, BUSINESSES AND OTHER PUBLIC PLACES.

_____ FOR PEOPLE TO THINK THAT THEIR SMOKING ONLY AFFECTS THEM AND NO ONE ELSE.

_____ FOR PEOPLE TO SMOKE IN CLOSED AREAS IN THE PRESENCE OF OTHERS.

_____ FOR INTERMISSION AT ANY EVENT TO BE AN AUTOMATIC TIME FOR PEOPLE TO SMOKE.

_____ FOR PEOPLE TO AUTOMATICALLY ASSUME THAT SMOKING IN THE PRESENCE OF OTHERS WILL NOT BE OFFENSIVE.

_____ FOR CIGARETTES TO BE DISPLAYED AT THE POINT-OF-PURCHASE IN STORES.

_____ FOR SMOKING TO BE PORTRAYED AS A DESIRABLE BEHAVIOR IN ADVERTISING MEDIA.

_____ FOR PEOPLE TO OFFER EXCUSES FOR WHY THEY CANNOT QUIT SMOKING.

_____ FOR PEOPLE TO DISREGARD THE FACT THAT SOMEONE ELSE'S SMOKING IS OFFENSIVE TO THEM.

_____ FOR PEOPLE TO FEEL THAT THE OTHER GUY IS THE ONE WHO WILL DIE AS A RESULT OF CIGARETTE SMOKING.

METHODS OF SMOKING CESSATION

- GROUP THERAPY
- FIVE DAY PLANS
- SELF HELP PROGRAMS
- FILTERS FOR GRADUAL CESSATION
- DRUG THERAPY
- AVERSION THERAPY
- HYPNOSIS

ABUSE

- BEHAVIORS WHICH BECOME EXCESSIVE HABITS
- BEHAVIORS WHICH ARE ORIGINALLY LEARNED TO FULFILL A NEED BUT LATER BECOME COUNTERPRODUCTIVE
- HABITS WHICH CAUSE US PROBLEMS
- HABITS WHICH REDUCE OUR CAPACITY TO FUNCTION

THE ALCOHOL-DRUG TRAP

Which of the following reflect pressures which affect your decisions regarding alcohol and drug use.

_____ FOR A HOST OR HOSTESS TO CONTINUALLY URGE GUEST TO HAVE ANOTHER DRINK.

_____ TO DRINK JUST BECAUSE EVERYONE ELSE IS HAVING ONE.

_____ FOR PEOPLE TO DRINK IN ORDER TO RELIEVE STRESS.

_____ FOR PEOPLE TO ACT OFFENDED WHEN OTHERS REFUSE A DRINK.

_____ TO VIEW ALCOHOL AS CRITICAL TO THE SUCCESS OF ANY SOCIAL EVENT.

_____ FOR PEOPLE TO REGULARLY USE PRESCRIPTION DRUGS.

_____ TO VIEW THE USE OF CONTROLLED SUBSTANCES STRICTLY AS A MATTER OF INDIVIDUAL CHOICE.

_____ TO EXPERIMENT WITH THE USE OF ILLEGAL DRUGS.

_____ TO USE ILLEGAL DRUGS REGULARLY.

WHAT KIND OF SUBSTANCE ABUSER ARE YOU?

Check the situations which reflect your behavior patterns.

_____ DO YOU FIND THAT YOU ARE DRINKING MORE NOW THAN IN THE PAST?

_____ DO YOU FREQUENTLY DRINK TO RELAX?

_____ DO YOU FIND THAT YOU CANNOT REMEMBER WHAT HAPPENED WHILE YOU WERE DRINKING?

_____ DO YOU FEEL THAT YOU CANNOT HAVE FUN IF YOU DO NOT DRINK?

_____ DO YOU FIND YOURSELF DRINKING IN THE MORNING TO RELIEVE A HANGOVER?

_____ DO YOU USE PRESCRIPTION DRUGS TO HELP CONTROL STRESS AND EMOTIONAL HIGHS AND LOWS?

_____ DO YOU FEEL THAT THE USE OF CONTROLLED SUBSTANCES CAN HELP YOU KEEP UP WITH YOUR WORK LOAD?

_____ DO YOU MIX DRINKING AND DRUG USAGE?

_____ HAVE YOU BEEN CONSIDERING MAKING A POSITIVE CHANGE IN ANY TYPE OF DRUG USAGE?

CONTROLLING ABUSE

- RECOGNIZING THE PROBLEM
- CLARIFY ALTERNATIVE LIFESTYLES
- MAKE DECISIONS THAT WILL CONTRIBUTE TO TOTAL FITNESS
- DEVELOP A SUPPORT SYSTEM WHICH UTILIZES COMMUNITY RESOURCES

EXERCISE PRINCIPLES

- REGULARITY. EXERCISE MUST BE DONE ON A REGULAR BASIS. SPORADIC EXERCISE PROBABLY DOES MORE HARM THAN GOOD. REGULAR REST, SLEEP, AND DIET ALSO ENHANCE THE BENEFITS.

- PROGRESSION. THE DURATION AND INTENSITY OF THE EXERCISE SHOULD BE GRADUALLY INCREASED OVER TIME.

- OVERLOAD. THE MUSCLES MUST BE GIVEN A WORKLOAD THAT EXCEEDS THE NORMAL DEMANDS.

- BALANCE. THERE MUST BE A BALANCE IN ACTIVITIES THAT WILL INSURE CARDIOVASCULAR, ENDURANCE, MUSCULAR STRENGTH, AND FLEXIBILITY FITNESS.

- VARIETY. A VARIED EXERCISE PROGRAM PREVENTS BOREDOM. WHEN IT INCLUDES SPORTS OR TEAM ACTIVITIES, IT INTRODUCES THE MOTIVATOR OF COMPETITION.

GENERAL EXERCISE PRESCRIPTION

- FREQUENCY. 3-5 HARD WORKOUTS PER WEEK ON AN EVERY OTHER DAY BASIS (EASY WORKOUTS YIELD RECOVERY TIME).
- INTENSITY.
  - A. EXERCISE OR TRAINING HEART RATE (EHR OR THR).
  - B. MAX HEART RATE TIMES 60% EQUALS MINIMUM EHR.
  - C. MAX HEART RATE TIMES 80% EQUALS MAXIMUM EHR.
- TIME. MAINTAIN EHR FOR AT LEAST A 20 MINUTE DURATION.

WARMUP AND COOLDOWN STATIC STRETCHING

- WARMUP.
  - A. DECREASES INJURIES (CARDIOVASCULAR START)
  - B. INCREASES FLEXIBILITY
  - C. MINIMIZES MUSCLE SORENESS
  - D. IMPROVES ATHLETIC PERFORMANCE

- COOLDOWN.
  - A. INCREASES FLEXIBILITY AND MINIMIZES MUSCLE SORENESS
  - B. GRADUALLY ADJUSTS BODY FUNCTIONS (CARDIOVASCULAR EMPHASIZED) BACK TO NORMAL

- STATIC TECHNIQUE.
  - A. ASSUME STRETCH POSITION SLOWLY AND GENTLY UNTIL TIGHTNESS (NOT PAIN) IS FELT
  - B. HOLD STRETCHES FOR AT LEAST 30 SECONDS
  - C. LEG STRETCHING EMPHASIZED, BUT DO NOT NEGLECT OTHER MUSCLE GROUPS

ANNEX D (REFERENCES)

REFERENCES

REFERENCES

1. Benson, Herbert. The Relaxation Response. Avon Publishers, New York City, 1976.

2. Brean, Herbert, How to Stop Smoking, Simon & Schuster, New York.

3. Breslow, L. Benefits and Limitations of Health Monitoring. American Journal of Medicine, 1979, 67, 919-920.

4. Clark, C. C. Environmental Wellness. Nurse Practitioner, 1981, November-December, 32-39.

5. Cooper, E. Fitness and Wellness Module. Institute of Aerobics Research, Dallas, TX, 1982

6. Dayani, E. Concepts of wellness. Nurse Practitioner, 1979, January-February 31.

7. Diekelmann, N. Wellness: approaches and resources. Nurse Practitioner, 1980, September-October, 41.

8. Froelicher, V. Exercise and health. American Journal of Medicine, 1981, 70, 987-988.

9. Haggerty, R. J. Changing lifestyles to improve health. Preventive Medicine, 1977, 6, 276-289

10. Jabes, J., deCarufel, A., and Straszak, I. Preventive medicine: getting the message across. Dimensions, 1981, 58 (12), 28-31

11. Knowles, J. H. The struggle to stay healthy. Preventive Medicine, 1977, 6, 147-148

12. Masi, A. T. An holistic concept of health and illness: a tricentennial goal for medicine and public health. Journal of Chronic Diseases, 1978, 31, 563-572

13. Manshia, Dennis. Holistic health: On wellness and its implementation in the United States Army, Unpublished, 1982.

14. Oelbaum, C. H. Hallmarks of adult wellness. American Journal of Nursing, 1974, 74, 1623-1625.

15. Strasser, A. L. Health maintenance: a personal responsibility. Occupational Health and Safety, 1981, 50, 9.

16. Wagner, E. H., Beery, W. L. Schoenbach, V. J., Graham, R. M. An assessment of health hazard/health risk appraisal. American Journal of Public Health, 1982, 72, 347-352.

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